

# Practical Greenkeeping

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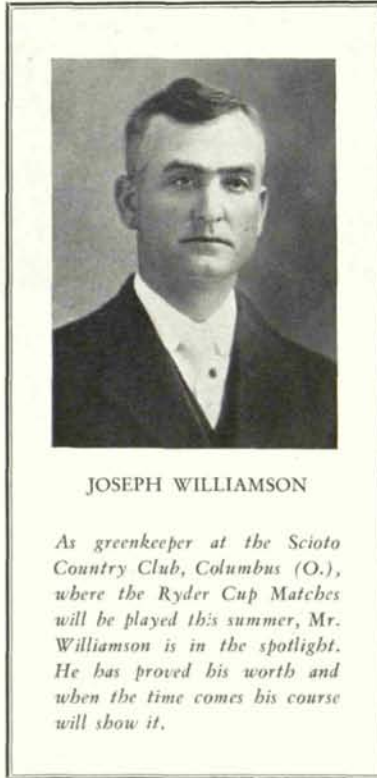
Read at the 5th Annual Educational Conference of the National Association of Greenkeepers of America, held at Columbus, O., February 3-6.

**G**REENKEEPING has so far advanced from what it was a few years back that the greenkeeper of today is in a new field so to speak, because of the exactness and proficiency of the average golfer and the vast increase and popularity of golf in general throughout the country which has caused and demanded far more thought and study in the art of greenkeeping than the old timers ever dreamed of. This has placed the greenkeeper as a marked man in the eyes of the golfer and the club by which he is employed for many reasons, a few of which I shall mention.

First—the advent of creeping bent for putting greens and the many and varied strains, none of which as yet have seemed to satisfy in any part of the country and up to the present time has kept the greenkeeper in hot water and nervous doubt where he has solid bent greens.

Second—the dub golfer with his ever-present alibi—the greens were terrible or he would have sunk his putts; the sand traps were full of footprints and washouts making him take a seven where he should have been down in par 3; the fairways were not mowed and he could not get anywhere but in the rough, and that was knee high, causing him to lose six balls and the match. In fact the course was in terrible shape, all of which was heaped upon the head of that darned greenkeeper.

These are a few of the many reflections we have to bear, irrespective of the club's finances which has the controlling interest as to the number of men employed to care for a course expected to be in first-class playing shape at all times, whether it rains for a week in the spring which stops the progress of the work, or during a drought like we have



JOSEPH WILLIAMSON

*As greenkeeper at the Scioto Country Club, Columbus (O.), where the Ryder Cup Matches will be played this summer, Mr. Williamson is in the spotlight. He has proved his worth and when the time comes his course will show it.*

just passed through in 1930 when everything was parched hard and dry—fairways literally burned out and water at a premium everywhere in the middle west. These are a few of the problems the greenkeeper of today runs into so far as the working conditions are concerned.

GREENKEEPER MUST BE MIRACLE MAN

**A** GREENKEEPER today must be a part at least of the following trades and professions if he would succeed: First, he must be a general to lead his men and a master of arts to show them how, a mechanic of first-class machinery of all kinds, a civil engineer to survey and construct, a landscape architect to

create and beautify, a doctor to diagnose, and a chemist to mix the dope which is now so generally used. In fact in a word, the greenkeeper of today must be a genius, and whether he is or not that is what he is expected to be anyway—"a miracle man."

So let us now get down to business and look his place over. First comes the question of equipment—tractors, machinery, tools, etc., to conduct the work efficiently at low cost.

Does he have up-to-date and labor-saving appliances? For if he has not, and his equipment is in poor shape and dilapidated condition, he cannot expect or be expected to do good clean work which is looked for today. A few dollars saved in cheap tools or in trying to get by for a while longer will eventually cost much more later on, besides the slovenly manner in which the course was kept and the disrepute piled upon him often at the cost of his job, whether it be his inability to maintain his



course under the conditions he has to work with, or the club's financial condition—all of these fall upon the man in charge.

On the other hand, if he is fully capable and an experienced greenkeeper many of these problems can be solved provided he is somewhat of a diplomat and can show his chairman the folly of trying to get by all the time with a poor working outfit which will cost twice as much in labor, half of which would pay for the necessary tools and put the place in much better shape and stop a deal of criticism.

What does he have for a starting-out place? Does he have a place fit to call a workshop for repairing tools and machinery? What has he got for a tool house where the tools, hand mowers, wheelbarrows, etc., can be housed without being thrown in a heap like a pile of junk among sacks of fertilizers and the like which have to be cared for and kept out of the weather, or where the men can go and get what they need without the trouble of throwing everything aside to find what is wanted.

This condition I have seen many times on so-called first-class courses, and is a reflection on a good greenkeeper. Far too often are good tools and machines carelessly thrown aside for the need of a rivet or set screw to put them in good shape.

#### GREENKEEPER NEEDS A GOOD WORKSHOP

**T**HE first essential and most important thing for the greenkeeper to have to start out with, is a good, clean workshop and an orderly and well-kept tool house, with a place for everything, and everything in its place when not in use. Then and only then is he ready to start off on the daily grind.

Another thing of great importance is the compost pile and the shed in which to prepare the top-dressing and to house it from the weather, where the men can work on rainy days instead of being laid off, and a cover for the tractors, trucks, and large machines. For a golf course without such accommodations is losing big money from waste and a rapid deterioration of equipment. With these accommodations which are most essential to efficiency and good workmanship, the greenkeeper feels a backing of security to meet the daily routine and speed up the work which otherwise would only be hindered by lack of such necessary accommodations.

The compost pile which has been so badly neglected for some time past, owing to new-fangled

ideas and high-powered fertilizers and salesmanship, is steadily coming back to its own. A golf course without a compost pile is like a home without a mother—something sorely missing. Concerning the composition of the compost pile, I think little need be said, for every well-versed greenkeeper who knows his humus knows only too well how to prepare and keep a big pile constantly coming along to nurse and mother his greens when feeding time comes, which naturally it does at frequent intervals and more often than not is very much neglected.

#### COMPOST PILE IS MOST IMPORTANT

**I** FEEL I cannot emphasize enough along this line after many years of practical greenkeeping experience and listening to and trying the dope of experts who recommend this and that for putting greens and grasses in general and to many who tell us that the compost pile is all the bunk and obsolete—for they are not only all wet, they are completely soured. Still they may have something to sell which is well worth trying. Try it if you will but only after you have top-dressed from your compost and filled the empty stomachs of your crying and hungry babies. Then you will be taking no chances that you would be doing by using stimulants instead of a good square meal at feeding time.

And now the question. How often should we top-dress? Well, of course, that depends upon the nature and condition of the soil. Some greens which I have seen have been so carelessly built that they had no soil or humus content whatever, having been made from the ground taken from the sand trap near by with the theory that bent grass would grow in anything if you used dope. This is the trouble and worry of many greenkeepers today, they have nothing to grow grass in except a hard compact clayey substance which would not grow black-eyed peas, let alone the tender grasses a putting green should be composed of. So, of course, this soil condition would regulate the frequency of top-dressing more so than a loose fertile soil of a well-prepared green.

One thing is certain—you cannot go wrong top-dressing a poor soil often as long as you do not blind the grass. You are only giving it something to grow in and feed upon, besides making a porous condition for light, air and water to penetrate, without which nothing can grow well, especially grasses.



## SIZING UP THE WORKING FORCE

Now let us look over the force of men the greenkeeper has in charge and send them out to their respective jobs on the course. I have always tried to team men together at work they seem best suited for, for it is useless to send a good truck driver out with a scythe when another can do a better job and would rather have that kind of work, or to put a good ditch digger mowing the greens or a good shovel man to drive the tractor when he can pile up and mix more top dressing than two other men who never liked the shovel anyway.

So it is up to the man in charge to find out where best to place his men to accomplish more and do better work which means efficiency and money saved. First the tractor man goes to mow the fairways or the rough; another takes the truck to do the hauling of various and sundry things of which there is always plenty.

## POLING GREENS

Next in order are the men to pole the greens which should be done first thing to break up any mycelia or fungus growth which spells brown patch in humid weather, and to remove worm casts and clean the greens ready for watering and mowing. When this is done the men are ready to start sprinkling.

At this point I would like to say that, personally, I prefer and do water the greens by hand in the morning for several reasons: First, to break up and wash off any fungus growth if any should be left there after poling; second, because I firmly believe and know a green can go through the heat of the day much better in its moist condition by morning watering than it can in a half dry state in which it surely is when watered the evening before; and the third reason is that I believe in letting nature do its work and leave the dew on the grass as long as possible all through the night. The grass is punished enough in the day time, so let it rest at night under a blanket of dew, nature's stimulant, and it will then be ready for a good drink to start a hard day in the morning when all things should move with the rising sun.

So, like yourselves, let your greens rest at night and I am sure they will respond and give better results by leaving them alone in peace at night. I do not know of anything that grows which is punished or tantalized more than a hard-working put-

ting green at all times, and many of them are fiddled to death and killed by over-indulgence. Nurse them along and treat them kindly with common sense and stop some of the punishment.

## WATERING GREENS

The men who have returned from poling the greens are now ready to do the watering and I venture to say that far too little attention is given to this all important part of greenkeeping—how it is done or how much water is poured on at one time, but this is often much neglected and done in haphazard methods by sprinklers.

It does not satisfy in the least because you have a sprinkler whirling around for a given time that the green has been watered properly, for the wind sometimes plays havoc with a sprinkler and carries the water wherever it will often leaving hard and dry one side of where the sprinkler stood. Yet it is moved to another location because the given time is up. This to me is all wrong for one place is saturated and over-watered, becomes soggy, closes up the voids in the soil, crippling the grass roots and causing a thinning out of the grasses and poverty of the soil, while the other, under-watered or neglected, turns brown and you wonder why.

I would suggest one-inch outlets at all greens and the use of a one-inch hose in one-piece length sufficient to cover the entire area, with one-inch jet nozzle battered to a flat fan shaped mouth which will, with the proper pressure, throw a feathered stream of water evenly. Then the rest is up to the man with his back against the wind to sprinkle the green as he would mow or roll it up and down a given space backing off until the green has been gone over thoroughly, then reversing his position side ways and start all over again until the allotted time is up for that particular green.

But don't forget that more greens are poverty stricken and worn out by over-watering than are ruined by under-watering, especially the bents, as many have learned too late by the scourge of brown patch after a rain in humid weather. So, beware!

## MOWING GREENS

Mowing greens is next in order when the men are through sprinkling. They are paired two to a green and they take in order one to eighteen, cutting the most convenient low numbers of the first nine so that they keep ahead of the players starting out. I have found this system most successful.

The men cut 4 or 5 widths around the green be-



fore starting straight across and reverse the direction each time the green is cut, north to south, east to west, and diagonal which has a tendency to stop the grass from growing or running all one way. The cuttings are disposed of immediately by scattering them thinly through the rough, leaving no unsightly places by dumping them around everywhere.

After mowing these men take care of the sand traps and the work in general through the course of which there is plenty at all times, mowing banks and slopes which can be done only by hand and the other jobs, fertilizing, top dressing, etc.

The tees and approaches are cut regularly by the same man who is responsible for the power machine he uses, and no other man is allowed to handle it; in this way better results are obtained, and the man in charge of this work feels his responsibility.

#### RAKING OR SCARIFYING GREENS

**T**HERE is now on the market a greens rake which I have termed a scarifier and consider this a most wonderful and efficient tool and a long felt want, especially as a labor saver for it does a much better and thorough job than can be done by hand rakes. It is 30 inches wide and pushes like a mower with flexible wire teeth one-half inch apart. The man pushing it can put on any desired pressure.

This scarifier rakes up all dead grass and the runners of the bent without tearing and leaves the grass after mowing clean and upright, just what is needed for good putting. My own greens have shown a remarkable change since using it. It also prepares the green much better for top dressing and would advise the use of this machine on all greens at least twice a month and am sure you will be pleased with the results.

#### TOP DRESSING

**T**O me top dressing is one of the most vital and important parts of greenkeeping, as it certainly covers up a multitude of sins as many of you well know, for it hides the scars of weeds and carelessness and cloaks from view the results from brown patch when that pest has been neglected. It trues up a rough green which the greenkeeper would surely hear about when the players see him.

The top dressing is prepared from the compost pile by pulverizing, screening and mixing with sand, and when piled in the shed ready for use is loaded into coal sacks with handles on each side and

hauled to the green. There it is carried to the men waiting with wheelbarrow and shovels to spread it broadcast. Two men do the broadcasting, one on each side of the wheelbarrow and take a strip from the far side of the green about 15 feet wide, backing off until that strip is covered, then they continue with another strip until the entire green is gone over.

When the men broadcasting have completed the first strip and are out of the way, two men drag or brush it in with a flexible steel mat 6 feet wide. A little speed with the mat puts the dressing well into the grass leaving it smooth and true, ready for immediate play and in much better shape than it was before.

By using the sacks it saves much shoveling and handling as the one operation puts it right where it is going into the wheelbarrow on the green without being dumped on the side of the green to be shoveled up again, leaving an unsightly place especially if it rains. Also by using the sacks a quick retreat can be made back to the shed with the top dressing under cover.

#### FERTILIZING

**T**HIS is a part of greenkeeping which is very often much overdone and the cause of a deal of our troubles. Over fertilization is just as harmful as not enough; many greens have been badly burned and set back by applying too heavy a dose of what have you and the sun beating down before you get it watered in. This is the experience of many of my fellow greenkeepers, and I know it. This is often the case with ammonium sulphate especially. A lighter application more often would be better and less likely to burn or discolor.

Not only sulphate of ammonia but other fertilizers which are used today in different forms are very much over used and cause an unnatural growth out of season, when most grasses should be dormant. It causes a mushy and soft blade to spring up in a hurry through having been forced, leaving the green in a weakened condition and a victim to the ravages of brown patch, and why?

A little thought and caution before you apply your fertilizer will pay you well. You must know the condition of your soil and its make-up and does it really need another dose? Or is your turf hide-bound and in need of a good massage or scarifying to loosen it up for light and air? Very often this is



needed to refresh and bring about a transformation on many greens.

#### BROWN PATCH

**I**N regard to the ever-present question of brown patch so much has been said and done that I will not dwell upon this, for as you all know it is the greenkeepers' woe; but I am sure Prof. Dickinson of Amherst College, Mass., has fully expounded this subject and truly explained everything concerning this pest. I heartily endorse and can confirm his findings as absolutely correct for I have tabulated with a recording thermograph which has proved conclusively that he is right. The only thing I can say is—keep your eyes open for its appearance, then get busy, scarify and give it the knockout.

#### KEEPING TAB

**F**OR many years I have kept a daily diary of each green's treatment and find it a great help in keeping a record without guess work, of when and how a green was treated when you top dressed or fertilized and how much was used. From this diary or record you know just how your greens have responded. It only takes a few minutes and will often stop doubling up by mistake which sometimes occurs with disaster.

#### TURF NURSERY

**I**T is good policy to have a sod nursery kept in good shape at all times for emergency to replace by patching a damaged green. It is mighty convenient when a green goes wrong and is worth the trouble.

In conclusion, I would like to remind you that it is the little details which count on a golf course. It is like the old adage—"Take care of the pence and the pounds will take care of themselves." Cleanliness and neatness are most important. How rough and ill-kept a place looks when fallen tree limbs are left lying around! And rubbish piles, tin cans, and bottles are left to litter up an otherwise well kept place. It not only mars the beauty of the course but it also detracts from the qualities of good workmanship and casts reflections upon the greenkeeper for his lack of attention to these little things which count.

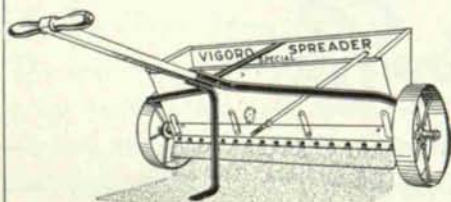
Clean towels regularly on the tees, changing the discs every day and the cups in the greens moved often, with a nice clean flag on the flagpole all go to show how well the course is cared for and is noticed more by the players in general than the bigger things on the golf course.

## Feed Greens and Fairways a Balanced Diet

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